

REMARKS

Claims 5, 6, 13 and 16 have been amended. New claims 19-28 have been added. The application now contains claims 5, 6 and 13-28 – four independent claims and a total of eighteen claims. Applicants reserve the right to pursue the original claims and other claims in this and other applications.

Claims 5, 6 and 13-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Reconsideration is respectfully requested.

The phrase “such as” no longer appears in the claims.

The words “diatheses and properties” have been deleted from claims 5 and 6. The words still appear in dependent claims 14, 17, 22 and 27. The objection to the words themselves is not understood. The words are used in the specification (page 5, lines 2 and 3, and page 8, lines 5-9) and in the claims consistently according to their ordinary dictionary definitions. According to *The American Heritage Dictionary*, “diathesis” means “a hereditary predisposition of the body to a disease, a group of diseases, an allergy, or another disorder,” and “property” means “a characteristic trait or peculiarity, especially one serving to define or describe its possessor; a characteristic attribute possessed by all members of a class.”

Moreover, please note that “diatheses and properties” that are associated with polymorphism are well known in the art. Alcohol sensitivity is one such diathesis and property. Attached hereto as Exhibit A is an article by Shoji Tsutaya *et al.* disclosing a relationship between alcohol sensitivity and genotype variants of *ALDH 2* (polymorphism).

The phrase “interaction among proteins” has been deleted from claims 5 and 6. The phrase still appears in claims 14, 17, 23 and 28. The objection to the phrase is not understood. The phrase is used consistently in the specification (page 8, lines 5-17) and claims. Moreover, “interactions among proteins” associated with polymorphism are well known. Attached hereto

as Exhibit B is an article by Cheng-Han Huang *et al.* disclosing a relationship between a protein-protein interaction and polymorphism in the band 3 protein.

Further, in each of the independent claims, the step of making a determination based on received positional information and positional information related to a transmitted polymorphism pattern has been changed to the step of making a determination as to whether the received positional information matches positional information related to the transmitted pattern. Thus, the claims as amended are believed to be in full compliance with 35 U.S.C. § 112.

The present invention relates to a method that includes the steps of “obtaining . . . a polymorphism pattern” (Fig. 6, SA10), “transmitting the . . . pattern” (Fig. 7, SA11), “receiving semantic information [or associated information] . . . in association with positional information” (SA16), and “making a determination as to whether the [received] positional information” (i.e., the positional information received in Step SA16) matches positional information related to the [transmitted] pattern” (SA17). In addition, the method includes the step of “alerting,” “in response to the determination.”

Claims 5, 6 and 13-18 are rejected under 35 U.S.C. § 103 as being unpatentable over Boyce-Jacino or Denton in view of Maloney or Mathias. Reconsideration is respectfully requested.

Boyce-Jacino refers to a system for providing clinical profile information to an individual over the Internet. In operation, a client provides a biological sample, the sample is analyzed to provide single nucleotide polymorphism data, the data is stored in a database, and the client is provided with a user name and password to gain access to, and provide others access to, the stored data (page 8, lines 2-4, 15 and 16). Boyce-Jacino does not teach anything about alerting anyone to unauthorized use and acquisition of SNP genetic data.

Maloney refers to a network system that automatically generates an alert and takes corrective action when a network is under attack (¶ 0071).

Claim 5, as amended, recites the step of “making a determination as to whether the positional information received in step (d) matches positional information related to the polymorphism pattern transmitted in step (c).” This is an important aspect of the claimed invention. The step is not taught or suggested by Boyce-Jacino and Maloney, even when the documents are considered together. Therefore, claim 5, as amended, should be allowable over Boyce-Jacino in view of Maloney.

Moreover, claim 5 recites the step of “alerting a party that received the polymorphism pattern transmitted in step (c).” This is another important aspect of the invention of claim 5. The step is not taught or suggested by Boyce-Jacino and Maloney, even when the documents are considered together. Therefore, this is another reason why claim 5 should be allowable over Boyce-Jacino in view of Maloney. The reference in the Office Action, page 3, lines 17 and 18, to alerting “the user of those data” is not understood. Please note that claim 5 refers to the party that received the transmitted polymorphism pattern.

Mathias refers to a security system that generates alerts (§ 0023). Mathias is not more relevant than Maloney, and the Office Action does not contend otherwise. Therefore, claim 5 should be allowable over Boyce-Jacino in view of Mathias.

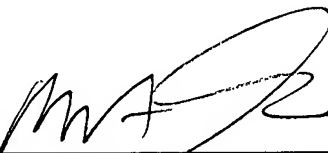
Denton, like Boyce-Jacino, merely refers to security issues regarding data transfer. Denton does not teach how to protect genetic data such as SNP, or how to provide an alert in the case of unauthorized use and acquisition of the genetic data. Denton is not more relevant than Boyce-Jacino. Therefore, claim 5 should be allowable over Denton in view of Maloney, and Denton in view of Mathias.

Claims 6, 13 and 16, like claim 5, recite the step of “making a determination as to whether the positional information received in step (d) matches positional information related to the polymorphism pattern transmitted in step (c).” Therefore, claims 6, 13 and 16, and dependent claims 14, 15, 17, 18 and 24-28, should be allowable along with claim 5 and for other reasons. The remaining claims (claims 19-23) depend from claim 5 and should be allowable along with claim 5 and for other reasons.

For at least the foregoing reasons, allowance of the application as amended, with claims 5, 6 and 13-28 is solicited. Favorable action on the application is solicited.

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Respectfully submitted,

By 

Mark J. Thronson

Registration No. 33,082
DICKSTEIN SHAPIRO LLP
1825 Eye Street, NW
Washington, DC 20006-5403
(202) 420-4742

Attorneys for Applicants